the GNSS specialists

ALLSAT

from GPS to GNS - GPS+GLONASS+GALILEO: 3 renewed Satellite Systems

ALLSATOPEN

Conference

June 22, 2006
Expo-Wal
in Hannover,
Germany

Program

- Do you work in the field of satellite-based positioning and navigation or are you interested in these topics?
- Would you like to get an idea of the efficiency of the 3 renewed satellite systems?
- Do you look for an exchange of experiences within the range of GPS, GLONASS and GALILEO ?

If you are interested, then do not hesitate to sign up for this year's **ALLSATOPEN** conference.

We invite you to participate in the 3rd ALLSAT OPEN conference, which will be held on the Hannover fairground in the Expo-Wal conference centre on June 22, 2006. The scope of the conference is to provide background information about the current development and the future potential of the 3 renewed satellite systems GPS, GLONASS and GALILEO for a Global Navigation System (GNS). The managers of the operating agencies of the GALILEO, GPS and GLONASS satellite programs will give us firsthand information of the current status and future plans for their satellite generations. Besides

Thursday June 22, 2006

10:00
Welcome and opening of the conference
Jürgen Rüffer, Director of ALLSAT
Dr. hc. Herbert Schmalstieg/Ingrid Lange
Mayor of the city of Hannover

10:30
Status of the Galileo concession and of the Galileo operations concept
Dr. Stefan Sassen, Director of TeleOp GmbH
Following the selection of the concessionaire consortium a major step on the way to finalize the concession contract has been reached and further details about the realisation of the Galileo operations concept were agreed. The control centres and the main responsibilities are defined.
This presentation will give a status-overview of the current agreements and describes the basic structure of the Galileo operator, the structure of the navigation services and the interfaces to the users.

11:00
Status and Development of GPS
Col. Richard Reaser Jr., Deputy System Program Director NAVSTAR GPS, US Air Force, Joint Program Office, Los Angeles, USA
During the next years the most common Satellite Navigation System GPS will be substantially modernized. Colonel Reaser will provide an overview on the evolution of GPS that includes a historical perspective, the current status and challenges as well as plans and future prospects for GPS. Some important issues will be the motivation for the GPS modernization, its plan and schedule. Another topic will be a description of the new civil signals, the procedure to increase the accuracy by upgrading the ground control stations and the improvement of the satellite design.

11:30
Status and Development of GLONASS
Vyacheslav Dvorkin, Russian Institute of Space Device Engineering, Moscow, Russia
The Russian GLONASS system will provide a full satellite constellation in the year 2007. The presentation will give an overview about the current status of GLONASS, recent developments and the future perspectives. Detailed information about the actual GLONASS Deployment Program will be discussed; a special item will be the ongoing GLONASS modernization. The benefits in using both existing interoperating systems, GPS and GLONASS, will be explained.

12:00
Private talks about GALILEO, GPS and GLONASS
Dr. Javad Ashjaee,
CEO, Javad Navigation Systems, Inc., USA
There are 15 years of development of combined GNSS receivers at Javad's companies, which has given him a lot of experience to watch the opportunities and challenges of combining GNSS signals.
With the new GeNiuSS™ chip combining all three GNSS the hardware is ready to receive signals from GPS, GLONASS and GALILEO in a single receiver. Based on his experience from adding GALILEO signals, Javad will present his view about GALILEO aspects regarding business, international cooperation and support of manufacturers.

12:30
Galileo Developments at Septentrio
Peter Grognard, Founder and Managing Director, Septentrio nv, Leuven, Belgium
Septentrio is a leading European manufacturer of professional GNSS receivers. Septentrio grew out of the Europe's premier independent microelectronics center IMEC, Interuniversity Microelectronics Center in Leuven, Belgium. Septentrio has introduced innovative professional GPS equipment since the beginning of its activities in 2000. Septentrio receivers were used to receive and process the world's first Galileo signals from space.
The speaker will give a short overview of the company's activities, technology and some of its achievements.

12:50 – 13:30 LUNCH

13:30
A Long View of GNSS Evolution
Thomas A. Stansell, Stansell Consulting, USA
From the user perspective, the GNSS evolution may seem to be creeping forward very slowly. From the systems engineering perspective, the pace is almost frantic. A long view is needed to plan for the important transitions ahead, which will be different for each type of user, from embedded cell phone and car navigation systems to the highest accuracy survey and machine control systems. This presentation will attempt to map the path to the future and highlight the key factors driving the outcome.

that, lecturers from the fields of research, development and application will show interesting insights for future applications and make recommendations for the signal combinations. The conference is rounded up by a panel discussion, which will be moderated by Glen Gibbons (Editor of Inside GNSS). The topic will be "How will a Global Navigation System look like in 2010".
Beyond this, there is the possibility to exchange experiences and build up interesting contacts in the breaks and during the evening event.

Friday June 23

14:00
The influence of new and modernized GNSS on positioning within RTK networks
Dr. Gerhard Wübbena, Director of Geo++ GmbH, Garbsen
Modernized GPS will provide new signals like L2C and a third frequency L5. The Russian GLONASS system shall have a full constellation within the near future. The European system Galileo is under development and shall provide another world wide navigation service after 2009. Galileo signals will also be transmitted on three frequencies. With all three systems in a fully operational status the world of positioning will dramatically change with respect to availability, accuracy and reliability of the services. Several aspects of these changes will be discussed, especially with respect to network RTK services.

14:30
Development of a multi-sensor navigation filter for high accuracy positioning in all environments
Professor Terry Moore, Director of the Institute of Engineering Surveying & Space Geodesy, University of Nottingham, United Kingdom
Even with GPS+GLONASS+GALILEO there are some environments where GNS needs help from additional means. Seamless Positioning in All Conditions and Environments (SPACE) is a project that aims to address the problems associated with centimetre level positioning in difficult environments such as urban canyons or indoors. This presentation describes the development and the results of the first field trials of a multi-sensor navigation filter that can be used to combine measurements from additional systems such as GNSS integrated with an INS for providing high accuracy positioning in all conditions and environments.

15:00
The contribution of Geodetic Fundamental Stations to Global Navigation Satellite Systems (GNSS)
Dr. Wolfgang Schlüter, Scientific Director of the fundamental station Wettzell, Germany
At Fundamental Stations the geodetic space techniques as VLBI (Very Long Baseline Interferometry) SLR/LLR (Satellite/Lunar Laser Ranging) and permanently installed GNSS receivers are employed. In addition several in situ observations complementary to the space techniques are carried out. This presentation summarizes the state of the art, the strength and weakness and the future developments of the observation techniques. In particular the complementary interactions between VLBI, SLR/LLR and the GNSS will be discussed.

15:30 – 16:00 COFFEE BREAK

16:00
GAUSS - GNSS Centre of Excellence for Safety Critical Applications, Simulation, Test & Certification
Dipl.-Ing. Harry Evers, Managing Director GZVB e.V. Project „GAUSS", Braunschweig, Germany
Location and navigation play a central role in all modes of transport – air, road, and rail. This market is being revolutionized by the increasing integration of GNSS. Galileo as a civil operated system offers service guarantees especially in the area of safety-critical applications in transportation. But notably standards, processes, and authorisations related to the certification of safety-critical applications in the areas of air, road, and rail transportation are still to be determined. GAUSS, located at the research airport Braunschweig, as a European centre of excellence for simulation, testing and certification of safety-critical applications can offer its expertise to validate the services guaranteed by the Galileo concessionaire.

16:30
GNS – a short overview of users' expectations and demands
Dipl.-Ing. Bastian Huck, Services, Manager of EU-Projects and **Dipl.-Ing. Michael Schulz,** Consultant, Development and Sales Manager ALLSAT GmbH
In the year 2010 over 75 GNS satellites will be available for positioning, navigation and timing applications. The start of the first Galileo satellite GIOVE-A and recent announcements of the Russian Federal Space Agency accompanied by the deployment of new GLONASS satellites strongly contribute to this promising future.
What does the user expect from three satellite systems? With more than 15 years of experience in the precise positioning and navigation market ALLSAT will give their view on general market demands and trends. Starting from the reference networks, the new GPS+GLONASS+GALILEO receiver generation will begin its breakthrough to the end users. The benefits of 75 GNS satellites will be visualized in an urban canyon simulation, also taking into account results from the European market development project GIGA funded by the Galileo Joint Undertaking.

17:00 Panel discussion
Moderated by **Glen Gibbons,** Editor and Managing Partner, Inside GNSS, Eugene, USA
How will a Global Navigation System look like in 2010?

18:00 Closing of ALLSAT OPEN conference

18:30 BBQ and Music in the Expo-Wal

Start: 9:30 am

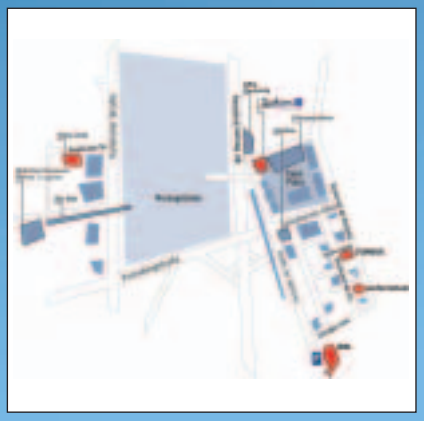
Invitation to our home fair at ALLSAT, Am Hohen Ufer 3A in Hannover with buffet, beverages and discussions with our staff, customers and partners.

At our home fair we offer live-demonstrations showing GNSS applications in the field. In addition you can get an insight into our new GART-2000® software products.

theGNSSspecialists

Conference Location:
Expo-Wal
Chicago Lane 9
30539 Hannover
Phone +49(0)511 8765769
Fax +49(0)511 8765774
www.derwal.de

Conference date:
June 22, 2006
Start: 10:00 am



Registration fees:
€ 290,- plus VAT
for registrations
until April 21, 2006
€ 390,- plus VAT
for registrations
after April 21, 2006

The registration fee includes:
Participation in ALLSAT OPEN
incl. folder with conference
documents, lunch and beverages,
evening event with BBQ

Registration at:
ALLSAT GmbH,
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30159 Hannover
Phone +49(0)511 30399-0,
Fax +49(0)511 30399-66,
E-Mail open@allsat.de

Registration deadline:
June 9, 2006

Accommodation:
In the Hotel and Conference
Centre Hannover-Kleefeld
a limited room contingent has
been booked in advance for
our ALLSAT OPEN participants
(€ 79,- incl. VAT and breakfast).
If you would like to reserve a room
bindingly please contact Mrs. Faupel:
Phone: +49(0)511-30399-0,
email: Susanne.Faupel@allsat.de

Organizer:
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Location description
can be downloaded under
the following links:

- Expo-Wal (ALLSAT OPEN)
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  - Kontakt
    - Anfahrt

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    - Anfahrt/Location